GEOGRAPHIC NEWS BULLETINS

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated under the Federal law as a non-commercial institution for the increase of geographic knowledge and its popular diffusion.)

General Headquarters, Washington, D. C.

Contents for Week of January 8, 1934. Vol. XII. No. 25.

1. Tibet, Land of Mystery, Loses Its "Living Buddha."
2. Following New Conquests of Antarctica.
3. El-Azhar, "Oxford" of the Moslem World.
4. Gold and Manganese May Add to Puerto Rican Wealth.
5. New Motor Roads Reach Garda, Italy's Largest Lake.

© *N. Y. T. & St. L. P. D.*

WHY MAP-MAKING IS SO DIFFICULT IN THE ANTARCTIC

Not only do extremely low temperatures make heavy gloves necessary, hampering the taking of notes, but the instruments used soon become encrusted with lacy crystals of hoar frost (See Bulletin No. 2).

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic News Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 9, 1922.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Tibet, Land of Mystery, Loses its "Living Buddha"

TIBET, the mystery land of Asia, has lost its chief "Living Buddha,"—a ruler even stranger and less known to the outside world than the remote mountain tableland over which he held supreme civil and religious control. Death of the Dalai Lama in his Potala Palace, overlooking the once "Forbidden City" of Lhasa, may mean new religious wars and struggles for power among 2,000,000 nomads, priests and bandits inhabiting this buffer state between India and China.

In spite of visits by an occasional explorer, Tibet is still almost as little known as in Marco Polo's day, over 600 years ago. Large sections of it are totally unexplored; other parts have been seen only in passing. Several expeditions of the National Geographic Society have penetrated Tibet, but chiefly in the eastern fringe along the Chinese border.

It seems almost incredible that an area of 463,000 square miles, almost twice that of the State of Texas, should have repelled all outsiders until recent years. But the answer is that Tibet is surrounded by the world's best system of natural fortifications—the Himalayas on the south, the great bulk of China on the east, and desert plateaus and mountains on the north and west.

Land of Devil Worshippers

Behind these bulwarks Tibet has existed for centuries, cool to the knocking of modern ideas. Buddhism seems to be the only great force molding the outside world which made itself felt behind Tibet's walls, and even that force, having once gained access, has been almost swallowed up in devil worship.

Almost nothing is known, even, of the origin and ancestry of the Tibetans. This is largely due to the rigid exclusion of men of science and other educated travellers. The Tibetans themselves dismiss the subject with fairy tales and legends. It seems certain, however, that they are not Chinese, nor are they similar to the Malayans farther south. American explorers report that they resemble somewhat our American Indians, although in color and other features there are indications that they have sprung from the original Mongol people.

Outside of a few towns and the many monasteries, the people of Tibet may be divided into the nomad herders of the uplands, and the settled farmers of the valleys. The nomads live throughout the year in their yak-hair tents, tending herds of yaks—great awkward, long-haired, cowlike beasts of burden—from which they obtain milk and meat.

The valley folk build thick, mud-walled houses with flat roofs. Farming is carried on under conditions that an American farmer would consider a heavy handicap. Their wooden plows have a single handle but they have removable digging parts which may be replaced when worn or broken. Barley and other cereals are grown, and there is some fruit-raising in the valleys.

One Woman May Have Several Husbands!

In parts of Tibet, especially among the country people, polyandry is a common marriage custom, which means that a woman has several husbands. In Tibet the husbands are usually brothers. One husband may take care of the home in the valley, another will be in charge of the yaks or sheep in the uplands, a third may be a trader, taking care of the caravan, while others will be assigned special duties. The oldest brother is considered the father and the other brothers the uncles of the family.

Nearly every family in Tibet has at least one son who is a lama, or priest of

UMI

Photograph by John Claude White

"MODERNISTIC ARCHITECTURE" NEARLY THREE CENTURIES OLD

The gateway to the once "Forbidden City" of Lhasa, capital of Tibet. Towering overhead and commanding the entire city rises the Potala, an enormous mass of buildings that combines palace, monastery, and fortress. It is bold in outline and design; brilliant with color. The temple buildings (the darker portion in the photograph above) are madder-red, with gleaming golden roofs, and the gray-white walls of the palace stand out sharply against the brown rocks and green shrubbery of the hill upon which the Potala stands (See Bulletin No. 1).

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Following New Conquests of Antarctica

ONLY a fortunate few—the members of Rear Admiral Richard E. Byrd's 2nd Antarctic Expedition and the members of Lincoln Ellsworth's Expedition to the Antarctic—will enjoy at first hand the thrills and adventures of exploration in Antarctica, the world's least known continent, during 1934.

But all of us can follow their conquests on a map—provided the map is up-to-date and easy to read.

In October, 1932, the National Geographic Society issued, as a special supplement to the National Geographic Magazine, a map of the Antarctic regions prepared in its own cartographic (map-making) division. The map not only embraces the entire Antarctic region but it also includes three inset maps showing in greater detail areas most frequently visited by explorers in the past, as well as routes to the South Pole.

Scores of New Names on Maps

Through the co-operation of Admiral Byrd, The Society's map of the Antarctic includes the names of scores of new bays, mountain ranges, peaks, plateaus, and glaciers, which were christened by Admiral Byrd in accordance with the international privilege accorded to a discoverer. These were placed accurately in their relation to each other and to the general terrain by Commander Harold E. Saunders, U.S.N., who was supplied by Admiral Byrd with all the photographic data, the time records, and the logs of the flights made by members of the Byrd Expedition.

In this work, which required two years of exhaustive computation, Commander Saunders evolved new principles of map construction in the use of aerial photographs when ground control is impracticable—principles which will prove of great value to future map-makers.

For the first time on any general map of the Antarctic, the flights of the four pioneers in Antarctic aviation—Wilkins, Byrd, Riiser-Larsen, and Mawson—are shown, and, for the first time on an English-language map, the work of the Japanese Expedition of 1912, under Lieutenant Shirase, is charted.

Two of the inset maps, showing Marie Byrd Land and the route of Admiral Byrd's South Polar Flight, bristle with names that have not previously appeared on any map of the Antarctic regions.

Useful Also In History Classes

The Society's map is of especial value to those interested in the history of Antarctic exploration because it also records all the important routes of those dauntless navigators, who, for a hundred and fifty years, through trackless frozen seas, have sought to chart the Antarctic regions.

What a galaxy of geographers they are, and what deeds of heroism and self-sacrifice stand behind such names as—Palmer, Wilkes, D'Urville, Ross, Weddell, Balleny, Bellingshausen, Biscoe, Bruce, Shackleton, Amundsen, Scott, Mawson, Isachsen, Riiser-Larsen, Wilkins, and Byrd!

Dates, marked along the routes, disclose that Captain James Cook, the Columbus of the Pacific, sailed below the Antarctic Circle as early as 1773. Other dates remind us that the resourceful Amundsen reached the South Pole just a month and four days before the intrepid Scott, the latter to lose his life on the return journey.

We find that the explorer Borchgrevink was the first to set foot on the Antarctic mainland in 1895, more than 50 years after the recognition of it as a continent by

UMI

Tibetan Buddhism. About one-seventh of the entire population of the country it is estimated, live in great monasteries called lamaseries, being supported, of course, by the remainder of the population. Here they live a life of idleness, feeding upon the superstitions of the native Tibetan, who firmly believes that ghosts and devils will interfere with his affairs unless stopped by a lama.

Lhasa, the mountain-girt capital of this country without a mile of railroad or a modern highway, is one of the most magnificently-situated cities in the world, but many of the white men who have seen it have done so in disguise.

The Potala, a huge edifice, dominating the flat roofs of the town, is somewhat "modernistic" in its architecture, although it was started in 1645, only a few years after the Pilgrims landed at Plymouth. This enormous mass of buildings, partly monastery, partly palace, and partly fortress rises from a rocky ridge which stands out in the center of a great valley (see illustration, page 2).

Here until his recent death the Dalai Lama ruled as the "Living Buddha," and here the red-robed monks still conduct the ceremonies of their order. But the interior of the Potala is disappointing, as it consists principally of a mass of dark passages and cells, and a few halls and flights of steps. There are, however, some fine bells, thousands of gold, silver, and copper images of Buddha, and hundreds of golden lamps burning the butter fat of yaks.

Note: Students interested in the strange customs and people of Tibet and adjacent regions will find additional references and photographs, some in natural color, in the following: "From the Mediterranean to the Yellow Sea by Motor," *National Geographic Magazine*, November, 1932; "First Over the Roof of the World by Motor," March, 1932; "Konka Risumgongba," July, 1931; "Glories of the Minya Konka," October, 1930; "Seeking the Mountains of Mystery," February, 1930; "Life Among the Lamas of Choni," November, 1928; "Through the Great River Trenches of Asia," August, 1926; "The Taurine World," December, 1925; "Experiences of a Lone Geographer," September, 1925; "Glimpses of Asia," May, 1921; and "The World's Strangest Capital," March, 1916.

Bulletin No. 1, January 8, 1934.

© *National Geographic Society*

THE YAK GRUNTS LIKE A PIG; GIVES MILK LIKE A COW; AND HAS A TAIL LIKE A HORSE

In addition to being a beast of burden the yak also provides meat and milk, and its hair is woven into tents used by herders. The guide in the photograph wears a nondescript uniform, ranging from Tibetan boots on his feet to a double felt hat on his head. Escorts of this kind are needed by explorers in this bandit-infested country.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

El-Azhar, "Oxford" of the Moslem World

EL-AZHAR, the oldest university in the world and the "Oxford" of the Moslems, is to get a complete "New Deal" in education. Under the personal direction of King Fuad I, of Egypt, the famous old institution of learning in Cairo will be brought more in line with modern university practice and teaching. No longer may students choose their own subjects and remain as long as they like. Modern science will be injected into a curriculum that for more than 900 years has taught its scholars that the world is flat.

El-Azhar, founded in 970 A.D. by the Caliph El Aziz, is the chief seat of learning and center of political thought of the Mohammedan world. Its teachings profoundly affect the thinking of the thousands who study there and of the millions of Moslems whose leaders they will be.

Few universities have as unusual or as picturesque a setting as has El-Azhar. In its earlier years the beautiful building was a mosque, but 16 years after its completion it was turned over to Moslem scholars. For nine centuries its voice has been a powerful one in the Mohammedan world.

Students Come from Many Lands

The present nearly rectangular structure, east of modern Cairo, and in the heart of the native city, has been so often restored that little of it can be said to date from the tenth century except the central court. A great deal of the original mosque was wrecked during the earthquake of 1303, but since that time the successive rulers of Egypt have delighted to add sanctuaries, columns, arcades, cupolas, and fantastic minarets.

From every part of the realm of Islam students come each year to study at this unique institution of learning. Nigeria, the Gold Coast, Morocco, India, Turkistan, Persia, Zanzibar, Arabia, and Borneo send their scholars for a course of study that may extend over 15 years, although successful students receive the Shadadet el Alimiya, or "diploma of learning" at the end of the twelfth year.

For three years more they may teach at El-Azhar, or at institutions of similar standing; and by taking a course in the "specialization section" may receive a final degree, or "diploma of specialization."

The old Arabic curriculum may seem a bit odd to students in Western universities. One is reminded of Lewis Carroll's "Alice in Wonderland" by such courses as: grammatical inflection, theology, exegesis, syntax, prosody, versification, algebra, and traditions. History, geography, and arithmetic have been optional studies, for the emphasis was always upon religious and civil teaching of Islam, as well as the classical Arabic of the Koran.

No Chairs, Endowed or Otherwise!

But stranger even than the courses of study are the time-honored teaching methods of this venerable university. El-Azhar still boasts of no classrooms, blackboards, maps, desks, or other educational equipment. There are no chairs, endowed or otherwise; no athletic fields or sports; no undergraduate debating teams or glee clubs. Little knots of students sit cross-legged on carpets and straw mats upon the stone floor, forming a circle around their teacher. Some of these groups listen attentively or take notes while the teacher speaks; others sway to and fro as they repeat certain phrases and dicta in a low sing-song voice.

To visitors who obtain passes to see classes in session (no photography is permitted), it is an unforgettable spectacle. Every detail recalls the Middle Ages—when scholarship was its own goal, unfettered by degrees and practical applications.

The Sanctuary, or principal lecture hall, spreads over an area about half the size of an American football field. Over much of it is a low ceiling, supported by 140 marble columns. The lighting ranges from dense shadow in the nine aisles to the brilliant sunlight of a mosque court.

Each Moslem nation is entitled to have its own apartments and its own teachers at the university. But quarters are likely to be little more than dimly-lit cells, and the classrooms any places that the teacher can find unoccupied in the pillared lecture hall and open court. The central library of El-Azhar contains 52,000 volumes, of which 15,000 are manuscripts of inestimable value to students of Mohammedanism.

All Based on Charity

Most of the 5,000 students of El-Azhar in recent years have been native Egyptians; but rubbing shoulders with them are black, brown, and yellow Moslems, for the Mohammedan scholar forgets nationality and race in a unity of creed. Instruction is free, and in addition there are doles for bread and other necessities, all contributed by pious and wealthy Moslems.

UMI

the American Wilkes—a distinction with which the Norwegian was not credited until the airplane flights of Wilkins in 1928 established the fact that the Antarctic Archipelago, south of Cape Horn, South America, is not a part of the mainland.

Note: The regular price of The Society's Map of Antarctica is 50 cents per copy for the paper edition and 75 cents per copy for the linen. For a limited time the School Service Department of The Society is able to offer the paper edition to teachers, librarians, students, and others engaged in educational work at 35 cents a copy for single copies, or 25 cents per copy in lots of ten or more.

The following form may be used in ordering:

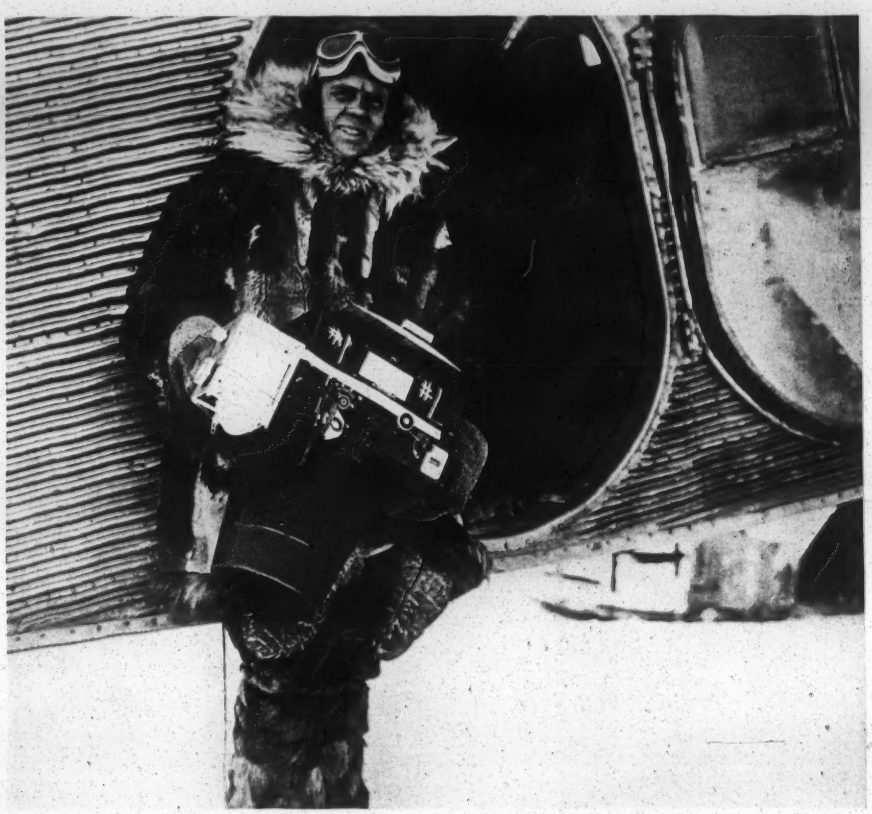
School Service Department,
National Geographic Society,
Washington, D. C.

I enclose.....(check, stamps, or money order). Please send me.....copies of the Map of Antarctica. I affirm that these shall be used for educational work and will not be resold.

Name.....School.....

Address.....

Bulletin No. 2, January 8, 1934.



© *National Geographic Society*

AERIAL CAMERAS ARE INVALUABLE AIDS TO MAP-MAKING

Captain Ashley C. McKinley, of the first Byrd Antarctic Expedition, about to enter the big plane that made the flight over the South Pole. In his hand he carries a 50-pound camera, with which 2,000 miles of horizon were filmed on the various Antarctic flights. These overlapping photographs added scores of unknown mountain peaks, ranges, glaciers, passes, and other geographic features to the map of the least-known continent.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Gold and Manganese May Add to Puerto Rican Wealth

SINCE the discovery of Puerto Rico by the Spaniards the big West Indian island has each year produced small quantities of gold, but a recent survey made by American geologists reveals that some $4,000,000 worth of gold might be recovered by modern methods from river deposits.

The survey also discloses new pockets of the ore of another metal—manganese—which promises to be more valuable to the United States than the gold. Most of America's supply of manganese is imported from the Soviet Union, Brazil, the Gold Coast, and other distant places, although Puerto Rico exported nearly 3,000 tons of manganese ore in 1931-32.

So long has Puerto Rico been considered an island of sugar cane, tobacco, coffee, and pineapple plantations that it may be difficult to imagine it from any other angle. But Puerto Rico is a land of many contrasts. It is both hoary with age and startlingly modern. San Juan, its capital, is the most ancient city over which the Stars and Stripes wave, and its moss-grown forts, with thick walls and stone sentry boxes, convent and cathedral, presidio, and powder house would all be familiar to the conquistadores.

Boxing Replaces Dueling

But that towering 5-and-10-cent store on the plaza! Puerto Rican girls gamboling on the beach in one-piece bathing suits; planes flying overhead; wireless towers; 20,000 race-track fans madly waving hats and cheering the horses! In another arena two husky Puerto Rican youths maul each other with 8-ounce gloves, instead of swinging faithful swords against rattling coats of mail. Amazing changes these, since Ponce de Leon's days.

The physical aspects of the island of Puerto Rico control, in large measure, the pursuits of the masses. The interior is peculiarly rugged. One passes upward from the coastal belt, where the highways are bordered with green and red-leaved false-almond trees, through a fringing labyrinth of hills massed with laurel and *bucare* trees, across deep valleys and sheer canyons, to the mountains, where the tree-ferns begin.

Diagonally across the island from San Juan to the southwest lies a coastal strip that is different. The rain clouds scurry over it and leave it arid. The blinding sun beats down upon it and blisters it. This very fact is responsible for one of the island's most interesting industries—the manufacture of straw hats. There is a palm that flourishes in just such a climate. It grows wild, to a height of about eight feet, and from its broad, fanlike leaves, the hats are woven.

More Schools Needed

With a large percentage of the population living in the rural districts and excessive illiteracy among the parents of children living outside San Juan, it has been a task to establish a sentiment in favor of education; but, thanks to a compulsory education law, a school garden program, and teacher visits to parent homes, rapid progress is being made in fostering such a sentiment. Nowadays the government cannot establish schools fast enough to meet the demands.

The educational record has been paralleled by the improvement of health conditions. When the United States took hold of the island the annual death rate was 42 out of every 1,000 inhabitants. As a result of the public health activities that followed the death rate in 1930-31 was only 18.6 per 1,000. Pressure of popula-

UMI

Many of the instructors are unpaid, being mostly learned men of Cairo and other Moslem cities, who eke out a living by private tuition and by copying manuscripts. At the head of this unique system of pedagogy is a Rector, one of the chief Moslem authorities in Egypt, and a governing committee of five.

Since 1929 a number of reforms have been gradually inaugurated to adapt the teaching of the university to present-day needs, but the present sweeping changes are the most radical El-Azhar has ever known.

Egypt also possesses a splendid State University in Cairo. This institution, founded in 1908, was reorganized in European style in 1925. It offers courses in medicine, law, art and sciences under both Egyptian and European instructors. Recently the American University at Cairo, which gives courses in Oriental studies for foreigners as well as courses for native Egyptians, dedicated a new Oriental Hall and a modern building for its School of Oriental Studies.

The Ministry of Education of Egypt maintains at Cairo more than a score of primary schools in the European style, as well as secondary schools, colleges for teachers, and numerous native elementary schools.

Note: For other Egyptian photographs and data, including glimpses of desert life, consult the following in the bound files in your school or local library: "Seeing the World from the Air," *National Geographic Magazine*, March, 1928; "East of Suez to the Mount of Decalogue," December, 1927; "Flying Over Egypt, Sinai, and Palestine," September, 1926; "The Land of Egypt," March, 1926; "Cairo to Cape Town, Overland," February, 1925; "Geography and Some Explorers," March, 1924; "At the Tomb of Tutankhamen," also "Egypt, Past and Present," May, 1923; "Along the Nile, Through Egypt and the Sudan" also "Peoples and Places of Northern Africa," October, 1922; "Adventures With a Camera in Many Lands," July, 1921; "From London to Australia by Aeroplane," March, 1921; and "Medicine Fakes and Fakers of All Ages" also "Weavers of the World," August, 1919.

Bulletin No. 3, January 8, 1934.

© *Donald McLeish*

A TYPE OF "SCHOOL" THAT EGYPT IS DISPLACING

This class of children on the steps of the Muayyad Mosque, Cairo, will first learn the alphabet and how to count. Then their instruction will be confined almost entirely to the Koran, or Bible of the Moslems. Modern schools and teaching methods, however, are now being introduced by the government, and even El-Azhar, oldest and most honored of Mohammedan universities, has been forced by young Moslems to bring its teachings more in line with the times.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

New Motor Roads Reach Garda, Italy's Largest Lake

NEW motor highways in the vicinity of Lake Garda, Italy's largest lake, have opened up an area of spectacular scenic beauty in northern Italy to tourist travel, and have also provided outlets for an important citrus fruit raising district along the shores of the lake.

While Lakes Como and Lugano are more familiar to outsiders, Lake Garda is a mecca for thousands of Italian vacationists each year. Garda has a charm and coloring distinctly its own. Indigo blue water seems to draw the eye up and away to the hills—green in the foreground, and misty violet as they rise higher into the distance.

Gourd-shaped, with a narrow, fiordlike neck running into the mountains, Garda is about 34 miles long but varies in width from three to eleven miles. Only Geneva and Constance surpass it in size among Alpine lakes. In many respects Garda resembles a small inland sea. Large sail-boats and steamers ply its surface, and its deep blue coloring is more like that of the Mediterranean than the paler blues and greens of its sister Lombardian lakes. When a north wind blows down from the mountains Garda's waves rival those of the ocean. At times a haze, like sea-fog, hangs over it, and in the winter months gulls enliven its water front with their raucous cries.

Once Partly Austrian

Before the World War two flags ruled its waves. The northern end of the lake and the city of Riva were Austrian territory. Garda was then a debatable region of romance and adventure, where Latin and Teuton touched elbows, and a picturesque gunboat-navy of customs officers waged unceasing warfare against even more colorful smuggler craft. Since the War the lake and surrounding country have been Italian.

Once the water passage through Lake Garda was an important trade link between the Italian city of Verona and the Tyrolean city of Trent. A shorter railroad line up the near-by Adige Valley, however, has taken away this commerce, and Garda has become again the quiet dwelling place of beauty, of which poets, even as far back as Roman days, have sung.

At Torbole, at the upper end of the lake, Goethe wrote the first of his Iphigenie in 1786. Since then the district has been a winter resort for Germans and Austrians, as well as a summer retreat for Italians.

Where the Lemon Was Named

Along the sheltered west shore, or Riviera, lemon orchards climb tier on tier up the steep hillsides, backed by stone walls for protection against the chilling winter winds. Nearly at the head of the lake is the hamlet of Limone, which, it might be supposed, was so named because of its large output of lemons. The story is the other way 'round, for the people of the district say that the fruit derived its name from this little town, the first place lemons were grown in Europe. The Lake Garda region also produces other citrus fruits, olives and grapes.

Scenically the district is an artist's paradise. Like a stage back-drop the fragrant laurel trees and gloomy cypresses and pines mix their foliage with sub-tropical palms, yuccas, magnolias and aloes. The plateaus above are streaked with barbaric reds and yellows. No less colorful are the lake-side villages, and their swallowlike homes of pinks, greens, browns, and blues, all roofed with dull red ties.

UMI

tion is becoming a big problem. With more laborers than there is work to be done, unemployment is a perennial evil, and a job is like an heirloom, to be handed down from generation to generation, whenever possible.

Usually the plantation laborer and his entire family go barefoot because there are no funds with which to buy shoes. Young boys in some rural districts run about with less than the proverbial fig leaf to clothe them, and suffer not at all, thanks to the glorious climate.

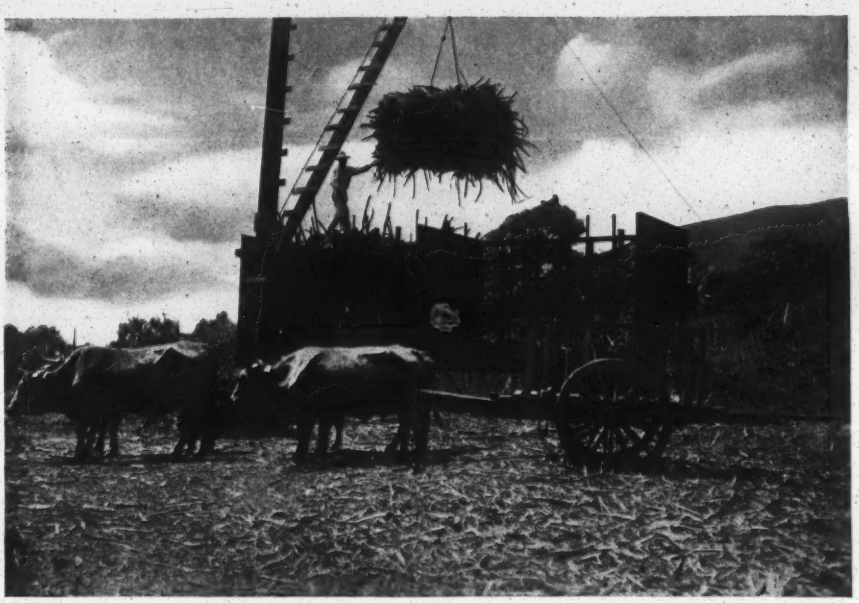
Rice and Beans Must Be Imported

Food, perforce, is both simple and scarce. Imported rice and beans, with a little bit of salt cod, appear on the table when the wage-earners are employed. When the job ends, bananas, sweet potatoes, and native vegetables raised on their small patches of ground must tide the families over until another period of employment begins.

The United States Department of Agriculture is trying to induce the natives to raise Belgian hares. The rapidity with which these animals breed, the quickness with which they attain maturity, and the ease with which their food requirements are met in the tropics make them poor man's cattle *par excellence*. Hare raising would solve the *jibaro's* (poor countryman's) meat problem as perhaps no other industry could.

Note: Students preparing West Indian units should also consult: "Skypaths Through Latin America," *National Geographic Magazine*, January, 1931; "Some Impressions of 150,000 Miles of Travel," May, 1930; "To Bogotá and Back by Air," May, 1928; "How Latin America Looks from the Air," October, 1927; "The Races of Domestic Fowl," April, 1927; "Puerto Rico, the Gate of Riches," December, 1924; and "The Haunts of the Caribbean Corsairs" also "On the Shores of the Caribbean," February, 1922.

Bulletin No. 4, January 8, 1934.



© *National Geographic Society*

SUGAR IS PUERTO RICO'S CHIEF MONEY CROP

After the cane is cut in the fields it is loaded into two-wheeled carts and drawn by oxen to railroad cars (above) which in turn carry it to the "centrals" or sugar mills. There the juice is pressed from the cane and evaporated to produce coarse crystals. Most of this raw sugar is shipped to the United States where it is refined into the gleaming white sugar of the dinner table.

Desenzano, the principal port along the southern shore of Garda, is a station on the mainline railroad from Milan to Venice. Near the town Piccard brought down his second stratosphere balloon in 1932. An arcaded piazza which faces the lake, is always the center for animated discussions and bowling matches among the fishermen and small merchants, who make up most of Desenzano's 4,500 inhabitants.

Note: Those interested in northern Italy, and the lake region in particular, will find additional helpful material in: "The Perennial Geographer," *National Geographic Magazine*, October, 1930; "Man and Nature Paint Italian Scenes in Prodigal Colors," April, 1928; "Under Radiant Italian Skies," August, 1926; "The Story and Legends of the Pontine Marshes," April, 1924; "Geography and Some Explorers," March, 1924; "Frontier Cities of Italy," June, 1915; and "Austro-Italian Mountain Frontiers," April, 1915.

Bulletin No. 5, January 8, 1934.

HOW TO OBTAIN GEOGRAPHIC NEWS BULLETINS

School Service Department,
National Geographic Society,
Washington, D. C.

Kindly send ..... copies weekly of the GEOGRAPHIC NEWS BULLETINS, for classroom use, to

Name .....

Address for sending Bulletins .....

City ..... School ..... grade

Enclose 25 cents for each annual series of Bulletins. These Bulletins are prepared wholly as a service to schools. Because of the cost of preparation they can be supplied only to teachers at the price named.

© *National Geographic Society*

SELLING LEMONS AND POMEGRANATES ON A LAKE GARDA STEAMER

The big lemons (upper bunch of fruit) of the Lake Garda hillsides are so mild that travelers eat them like apples. In the background rise villas and other houses typical of the lakeside—a continuous panorama of scenic delights. Lake Garda also supports an important fishing industry. Trout weighing up to 25 pounds are taken from its blue waters.

UMI